



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: CFM56-5B6/P BYPASS RATIO: 6.0
 UNIQUE ID NUMBER: 3CM028 PRESSURE RATIO (π_{00}): 24.6
 COMBUSTOR:
 ENGINE TYPE: TF RATED THRUST (F_{00}) (kN): 104.5

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	13.3	53.1	46.9	7.0
AS % OF ORIGINAL LIMIT	67.9	45.0	52.5	29.9
AS % OF CAEP/2 LIMIT (NO _x)			65.7	
AS % OF CAEP/4 LIMIT (NO _x)			80.3	
AS % OF CAEP/6 LIMIT (NO _x)			91.2	
AS % OF CAEP/8 LIMIT (NO _x)			110.2	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
 - DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.961	0.20	0.90	23.60	5.4
CLIMB OUT	85	2.2	0.799	0.20	1.00	19.60	2.2
APPROACH	30	4.0	0.275	0.60	2.90	9.20	0.3
IDLE	7	26.0	0.097	5.50	27.70	4.00	0.6
LTO TOTAL FUEL (kg) or EMISSIONS (g)			363	901	4525	4232	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				8.6	43.3	40.5	5.4
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)							

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.2-99.6
TEMPERATURE (K)	281.5-283.6
ABS HUMIDITY (kg/kg)	0.0065-0.0075

FUEL

SPEC	Jet A
H/C	1.92
AROM (%)	19

MANUFACTURER: CFM International
 TEST ORGANIZATION: CFM56-5B Eval Engineering
 TEST LOCATION: Techspace-Aero Facility, Liege, Belgium
 TEST DATES: 01/11/1995

REMARKS

1. FAA Certification Report CR-797/P, June 95.
2. Engine S/N 779-194/1

Compliance with Fuel Venting requirements: -

('x' if complies, 'PR' if pre-regulation, '-' if information is not available)